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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,599	02/06/2002	Ricky Merle Peterson	ROC920010319US1	8298

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EXAMINER
TRUONG, CAMQUY

ART UNIT	PAPER NUMBER
2195	

MAIL DATE	DELIVERY MODE
01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/068,599	PETERSON, RICKY MERLE
	Examiner	Art Unit	
	Lewis A. Bullock, Jr.	2195	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *November 2, 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 10-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 10-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some *   c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   In view of the appeal brief filed on November 2, 2007, PROSECUTION IS

HEREBY REOPENED. The non-final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the

following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-7 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable

over BELLAMY (U.S. Patent 4,253,144).

As to claim 4, BELLAMY teaches a method for dispatching tasks/commands in a computer system that includes a plurality of processors, the method comprising the steps of: determining the status of each of the plurality of processors, wherein a processor is idle if not executing any tasks (idle processor), wherein the processor can accept a new task if busy working on one or more tasks but has the capacity to process the new task (engaged processor), and wherein the processor cannot accept the new task if busy working on a maximum number of tasks the processor can execute (engaged processor); and dispatching the new tasks to an idle processor, if one exists (via determining first if there exists any available processor to handle a task/command by first determining and/or choosing an idle processor if one exists, if an idle processor does not exist, then choosing a non engaged processor, e.g. a processor which when it finishes its currently scheduled activities, will then be available for processing of the received command and message) (see col. 58, lines 3-20; col. 58, lines 29-38; col. 59, lines 9-21; col. 61, lines 37-46; col. 61, line 65 – col. 62, line 4; col. 62, line 60 – col. 63, line 19; abstract). BELLAMY does not teach that the commands/messages are threads to be executed. Official Notice is taken in that thread instructions are commands and that dispatching threads to processors for execution is well known by one of ordinary skill in the art at the time of the invention (see U.S. Patent 6,728,959 or 6,505,229 as examples of such). Therefore, it would be obvious that the commands/messages of BELLAMY are threads that are dispatched to be executed by processors. In addition, BELLAMY does not put limits on the types of processors used in the system and

therefore it is an obvious design choice that the processors are multi-threaded

processors.

As to claim 5, BELLAMY teaches if none of the plurality of processors is idle and

if at least one of the plurality of processors can accept the new task / command, the

thread dispatch mechanism dispatches the new task / command to one of the plurality

of processors that can accept the new task / command (via determining first if there

exists any available processor to handle a task/command by first determining and/or

choosing an idle processor if one exists, if an idle processor does not exist, then

choosing a non engaged processor, e.g. a processor which when it finishes its currently

scheduled activities, will then be available for processing of the received command and

message) (see col. 58, lines 3-20; col. 58, lines 29-38; col. 59, lines 9-21; col. 61, lines

37-46; col. 61, line 65 – col. 62, line 4; col. 62, line 60 – col. 63, line 19; abstract).

As to claim 6, BELLAMY teaches communication between processors for

relaying commands / tasks wherein the processors have receive ports or receive

queues for storing the commands/tasks (col. 10, lines 38-46). BELLAMY teaches

determining first if there exists any available processor to handle a task/command by

first determining and/or choosing an idle processor if one exists, if an idle processor

does not exist, then choosing a non engaged processor, e.g. a processor which when it

finishes its currently scheduled activities, will then be available for processing of the

received command and message (see col. 58, lines 3-20; col. 58, lines 29-38; col. 59,

lines 9-21; col. 61, lines 37-46; col. 61, line 65 – col. 62, line 4; col. 62, line 60 – col. 63,

line 19; abstract). Official Notice is taken in that receive queues fill up when an

excessive number of messages are received and therefore, if the queue is filled,

throttling is used such that no new messages are received / transmitted until some of

the messages in the queue are handled (see EP 0735476 A1 as an example of such).

It would be obvious to one of ordinary skill in the art that this functions in the teaching of

BELLAMY also when it receives tasks for execution by the processors in their receive

queues / ports and thereby the teachings of BELLAMY would obviously teach that if all

of the plurality of processors cannot accept the new task (all receive queues are filled in

engaged processors), the task dispatch mechanism waits for one of the plurality of

processors to complete processing a task, thereby becoming a processor that can

accept the new task, and then dispatches the task to the processor that can accept the

new task (via the queue having room for the new message and thereby placing the

message in the engaged processors queue for handling).

As to claim 13, BELLAMY teaches wherein all processors are made busy

(engaged) with a first task/command before dispatching a second task / command to

any processor (via determining and communicating with idle processors first before

engaged processors) (see col. 58, lines 3-20; col. 58, lines 29-38; col. 59, lines 9-21;

col. 61, lines 37-46; col. 61, line 65 – col. 62, line 4; col. 62, line 60 – col. 63, line 19;

abstract).

As to claims 1-3 and 12, reference is made to an apparatus that corresponds to the method of claims 4-6 and 13 and is therefore met by the rejection of claims 4-6 and 13 above.

As to claims 7, 10, 11 and 14, reference is made to a program product that corresponds to the method of claims 4-6 and 13 and is therefore met by the rejection of claims 4-6 and 13 above.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-7 and 10-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..
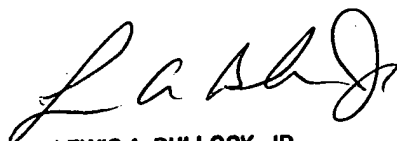
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 18, 2008

TUAN DAM
SUPERVISORY PATENT EXAMINER

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER